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(71) Applicant: **MATSUSHITA ELECTRIC WORKS LTD**

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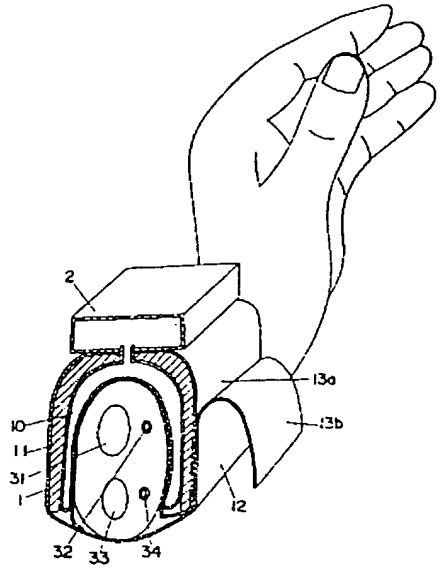
(54) CUFF BAND OF WRIST TONOMETER

(57) Abstract:

PURPOSE: To facilitate fixing to a wrist by providing a blood checking part for constricting the ulnar artery and radial artery of a wrist, and installing a U-shaped clip plate interiorly.

CONSTITUTION: A body 2 with a display part and switch arranged on the surface is installed on a cuff band 1 consolidated. This cuff band 1 is equipped interiorly with a blood checking sack 10 located on the inner surface and a U-shaped clip plate 11 located on the outer surface and surrounding the blood checking sack 10, and a fitting piece 12 is extending at one end. When expanding, this blood checking sack 10 constricts the radial artery 32 on the radius 31 side situated inside the wrist and the ulnar artery 34 located on the ulna 33 side. The clip plate 11 is formed from plastics capable of elastic deformation, and the part of cuff band 1 where the blood checking sack 10 is fitted, is held in U-form.



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審査請求　未請求　請求項の数 1　(全3頁)

⑤4発明の名称　手首用血圧計のカフ帯

⑳特　願　昭63−94045
㉒出　願　昭63(1988)4月15日

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明　細　書

1．発明の名称

手首用血圧計のカフ帯

2．特許請求の範囲

(1) 手首の橈骨動脈と尺骨動脈とを圧迫して血圧測定を行なう血圧計のカフ帯であって、上記両動脈の圧迫用阻血部を備えるとともに、内部にU字型であり且つ開口部の幅が手首の厚みに略等しいものとされたクリップ板を備えていることを特徴とする手首用血圧計のカフ帯。

3．発明の詳細な説明

【産業上の利用分野】

本発明は手首において血圧測定を行なう手首用血圧計のカフ帯に関する。

【従来の技術】

血圧計として従来より提供されているのは、そのカフ帯が上腕に装着されて、上腕動脈から血圧の測定を行なうものであった。

【発明が解決しようとする課題】

この場合、カフ帯の装着に際し、シャツの袖を大きくまくり上げたりシャツを脱いだりしなくてはならない。

本発明はこのような点に鑑み為されたものであり、その目的とするところは血圧測定を簡便に行なうことができる手首用血圧計のカフ帯を提供するにある。

【課題を解決するための手段】

しかして本発明は、手首の橈骨動脈と尺骨動脈とを圧迫して血圧測定を行なう血圧計のカフ帯であって、上記両動脈の圧迫用阻血部を備えるとともに、内部にU字型であり且つ開口部の幅が手首の厚みに略等しいものとされたクリップ板を備えていることに特徴を有している。

【作用】

本発明によれば、手首において血圧測定を行なうために、シャツを大きくまくり上げる必要がなく、しかもクリップ板内に手首を嵌め込むことによって、手首への取り付けを容易に行なえるものである。

〔実施例〕

以下本発明を図示の実施例に基づいて詳述すると、この血圧計は、第２図に示すように、血圧表示部２０やスイッチ２１が表面に配されている本体部２がカフ帯１に一体的に取り付けられ、手首にカフ帯１を装着した時、掌を横向きにした状態で血圧の測定を行なえるようにしたものであって、布等で形成されているカフ帯１は、第１図から明らかなように、内周側に位置する阻血袋１０と、外周側に位置して阻血袋１０を囲むＵ字型のクリップ板１１とを内部に備え、一端から装着片１２が延出されたものとなっている。

上記阻血袋１０は、ゴム袋のような弾性伸縮自在なもので形成されており、この阻血袋１０を囲んでいるクリップ板１１も、弾性変形可能な合成樹脂にて形成されて、カフ帯１における阻血袋１０が設けられた部分をＵ字状に保持している。殊に、クリップ板１１の開口幅は手首の厚みに略等しいものとされており、手首への装着は、カフ帯１のＵ字状をなしている部分に、手首をその側面から嵌め込んだ時、クリップ板１１の弾性により手首に過不足なくカフ帯１が嵌まるようになっている。尚、上記本体部２は、このクリップ板１１に連結されて、カフ帯１に取り付けられたものとなっている。

カフ帯１の一端の上記装着片１２は、その内面側に、カフ帯１他端の外面側に設けられた面状ファスナー１３ａと対をなす面状ファスナー１３ｂが取り付けられているもので、上述のようにクリップ板１１の弾性を利用して手首にカフ帯１を嵌め付けた後、装着片１２を更に巻いて面状ファスナー１３ａ，１３ｂ同士を結合させることにより、手首へのカフ帯１の装着が完了する。

ここにおいて、上記阻血袋１０は、膨張した際に、手首の内部にある橈骨３１側の橈骨動脈３２と、尺骨３３側にある尺骨動脈３４の両動脈を、手首の前後面及び一方の側面から圧迫することができる大きさとされており、この時の阻血袋１０は、外周側に控えているクリップ板１１のために、膨張時の圧力を、手首側に確実に伝える。

また、このように手首にカフ帯１を装着した時、前述のように、表示部２０を備えた本体部２は、掌を横に向けた状態の時に、上方を向くようにすることで、腕をねじって掌が上を向くようにしなくとも、血圧値を読取れるようにしてある。

ここでは血圧計の本体部２がカフ帯１に一体的に取り付けられているものを示したが、このような形態に限るものではないことは明白である。

【発明の効果】

以上のように本発明に係るカフ帯は、手首に装着されて橈骨動脈及び尺骨動脈を圧迫するものであり、血圧測定に際してシャツを大きくまくり上げたりする必要がなく、しかもカフ帯に設けられたＵ字型のクリップ板が、カフ帯に対し、手首の嵌め込みが容易となる形状を保持させて、ワンタッチで手首に取り付けられるようにしていることから、手首への装着自体も簡便に行なえるものである。

4．図面の簡単な説明

第１図は本発明一実施例の破断斜視図、第２図は同上の斜視図であって、１はカフ帯、２は本体部、１０は阻血袋、１１はクリップ板を示す。

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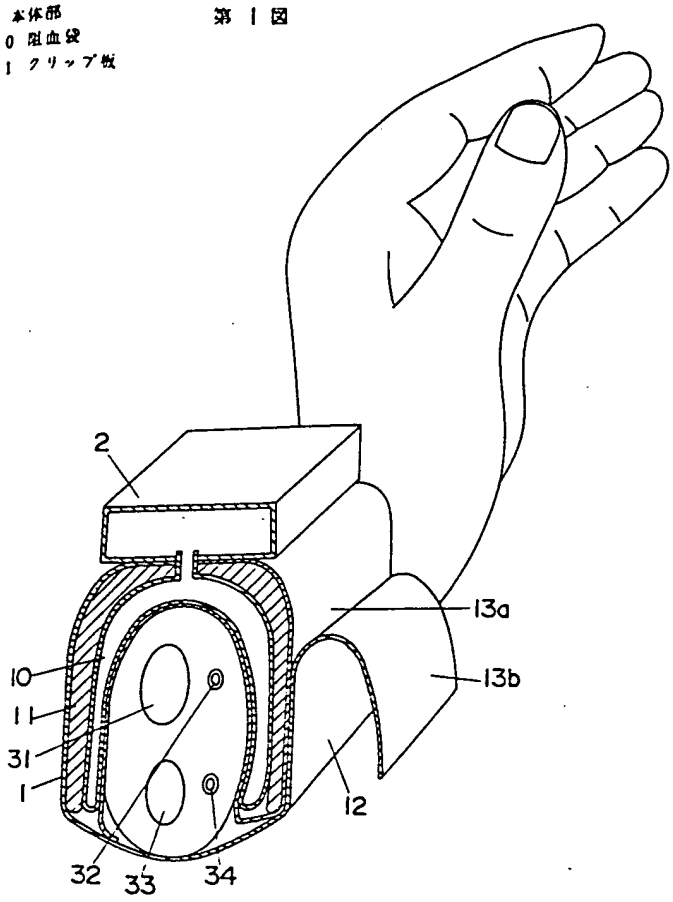
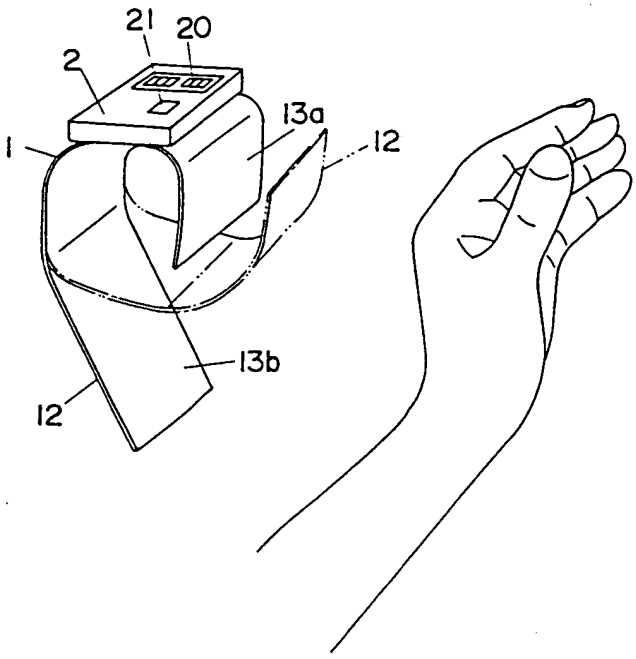
1 カフ帯
2 本体部
10 阻血袋
11 クリップ板

第1図



第2図



Japanese Patent Laid-Open No. 265939/1989

Laid-Open Date: October 24, 1989

Application No. 94045/1988

Application Date: April 15, 1988

Request for Examination: Not made

Inventor: Haruhiro TERADA

Applicant: Matsushita Electric Works, Ltd.

Specification

1. Title of the Invention

CUFF BAND OF WRIST SPHYGMOMANOMETER

2. Claim

(1) A cuff band of a sphygmomanometer for pressing a radial artery and an ulnar artery of a wrist to measure a blood pressure, characterized in that said band has a blood checking section for pressing both said arteries, and includes therein a clip plate which has a U-shaped form and in which the width of an opening is substantially equivalent to the thickness of the wrist.

3. Detailed Description of the Invention

[Industrial Field of Application]

The present invention relates to a cuff band of a wrist sphygmomanometer for measuring a blood pressure in a wrist.

[Prior Art]

As for a sphygmomanometer provided so far, a cuff band thereof is attached to a brachium and a blood pressure is measured from a brachial artery.

[Problem to be Solved by the Invention]

In this case, upon attaching the cuff band, the user must extensively roll up a sleeve of his shirt or take off his shirt.

The invention is made in consideration of the problem and it is an object of the invention to provide a cuff band of a wrist sphygmomanometer whereby a blood pressure can be easily measured.

[Means for Solving the Problem]

The invention relates to a cuff band of a sphygmomanometer for pressing a radial artery and a ulnar artery of a wrist to measure a blood pressure, characterized in that the band has a blood checking section for pressing both the arteries, and includes therein a clip plate which has a U-shaped form and in which the width of an opening is substantially equivalent to the thickness of the wrist.

[Operation]

According to the invention, to measure a blood pressure in a wrist, it is unnecessary to extensively roll up a shirt. Further, the wrist is fitted into a clip plate, so that the attachment to the wrist can be easily performed.

[Embodiment]

The invention will now be described in detail hereinbelow on the basis of an illustrated embodiment. As shown in Fig. 2, a sphygmomanometer is constructed in such a manner that a main body 2 in which a blood pressure display unit 20 and a switch 21 are arranged on the surface thereof is integratedly attached to a cuff band 1. When the user attaches the cuff band 1 to his wrist, a blood pressure can be measured in a state in which his palm faces sideways. As obviously understood from Fig. 1, the cuff band 1 made of clothes or the like comprises a blood checking bag 10 located on the inner peripheral side and has therein a U-shaped clip plate 11 which is located on the outer peripheral side and which surrounds the blood checking bag 10. A fitting piece 12 is extended at one end of the band.

The above blood checking bag 10 is made of a material such as a rubber bag which is elastic and extendable. The clip plate 11 surrounding the blood checking bag 10 is also made of a synthetic resin which is elastic and can be deformed. The clip plate holds a portion, in which the blood checking bag 10 is provided for the cuff band 1, in a U-shaped form. Further, the opening width of the clip plate 11 is substantially equivalent to the thickness of the wrist. As for the attachment to the wrist, when the side surface of the wrist is slipped into the U-shaped portion of the cuff band 1, the cuff band

l is properly fitted to the wrist due to the elastic properties of the clip plate 11. The above-mentioned main body 2 is coupled to the clip plate 11, thereby being attached to the cuff band 1.

To the inner surface of the fitting piece 12 at the one end of the cuff band 1, a plane fastener 13b, which pairs with a plane fastener 13a arranged on the outer surface of the other end of the cuff band 1, is attached. As mentioned above, the cuff band 1 is fitted to the wrist by using the elastic properties of the clip plate 11 and, after that, the fitting piece 12 is further wrapped around the wrist to connect the plane fasteners 13a and 13b to each other, thereby completing the attachment of the cuff band 1 to the wrist.

In this instance, the above-mentioned blood checking bag 10 has such a size that when the bag is expanded, it can press both of a radial artery 32 located on a radius 31 side and an ulnar artery 34 on an ulna 33 side in the wrist from the front and rear surfaces and one side surface of the wrist. At that time, the blood checking bag 10 surely transmits a pressure upon expansion to the wrist due to the clip plate 11 provided on the outer peripheral side.

When the cuff band 1 is attached to the wrist in this manner, the main body 2 having the display unit 20 as mentioned above is constructed in such a manner that when the palm faces sideways, the main body faces upward. Accordingly, even when

the user does not twist his arm so that the palm faces upward, he can read a blood pressure value.

The embodiment in which the main body 2 of the sphygmomanometer is integratedly attached to the cuff band 1 has been illustrated here. It is obvious that the invention is not limited to it.

[Effects of the Invention]

As mentioned above, the cuff band according to the invention is attached to the wrist to press the radial artery and the ulnar artery. Upon measuring the blood pressure, it is unnecessary to extensively roll up the shirt. Further, the U-shaped clip plate provided for the cuff band permits the cuff band to maintain such a form that fitting to the wrist can be easily made, so that the band can be attached to the wrist with a single motion. Accordingly, the attachment to the wrist can be also easily performed.

4. Brief Description of the Drawings

Fig. 1 is an exploded perspective view of an embodiment of the invention and Fig. 2 is a perspective view thereof. Reference numeral 1 denotes a cuff band; 2 a main body; 10 a blood checking bag; and 11 a clip plate.